

U.S.S.N. 09/662,927

Filed: September 15, 2000

## AMENDMENT AND RESPONSE TO OFFICE ACTION

## In the Claims

1. (twice Amended). A system for monitoring and responding to the environment of an implanted device, wherein the device is not for drug delivery, comprising:

one or more sensors configured for monitoring data relating to variables selected from the group consisting of electrical, magnetic, mechanical, fluid flow, chemical, and thermal properties in the device or its environment in a patient, [and]

at least one actuator configured for implementing a response to the monitored data in the device by causing a configurational change in the device,

means for communication to one of a series of nested loops of information exchange, and

an external input connected through loops to effectuate change in the device from the at least one actuator.

Please cancel claims 6 and 7.

19. (twice Amended). The system of claim 1 comprising transmitting and receiving means to the one or more sensors, wherein the transmitting and receiving means are suitable for transmitting or receiving data from a computer or phone communication means.

Please cancel claim 23.

28. (twice Amended). The system of claim [1] 36 wherein at least one sensor is configured to measure protein deposition or formation of a bacterial film on a biliary stent, increase in calcification of a urinary stent, and neointimal thickening of an arterial stent, resulting in an increase in thickness, mass and wall shear.

33. (Twice Amended). An implantable device comprising:

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[one or more] multiple sensors configured for monitoring at least one condition;  
at least one actuator configured for implementing a response to the monitored  
condition in the [device by causing a configurational change in the device] sensors other than  
drug delivery;

wherein the one or more sensors communicate information to a computer  
transmitting the information to another computer via the internet or through multiple levels of  
isolated or nested levels of information transfer, and

the one or more sensors and the at least one actuator configured for control by at  
least one apparatus external to the implantable device.

Please add new claims 34-36.

34. The system of claim 1 wherein the device is selected from the group consisting of  
therapeutic and diagnostic devices.

35. The system of claim 34 wherein the device is a diagnostic implant selected from  
the group consisting of spehres, pellets, wafers, slivers, chips, weaves, fabrics, and arrays.

36. The system of claim 34 wherein the device is a therapeutic support device  
selected from the group consisting of stents, stent-grafts, grafts, rings, hooks, sutures, wires,  
tissue conduits.

**Remarks**

Reconsideration in view of the foregoing amendments and the following remarks is  
respectfully requested.

Amendments to the Claims